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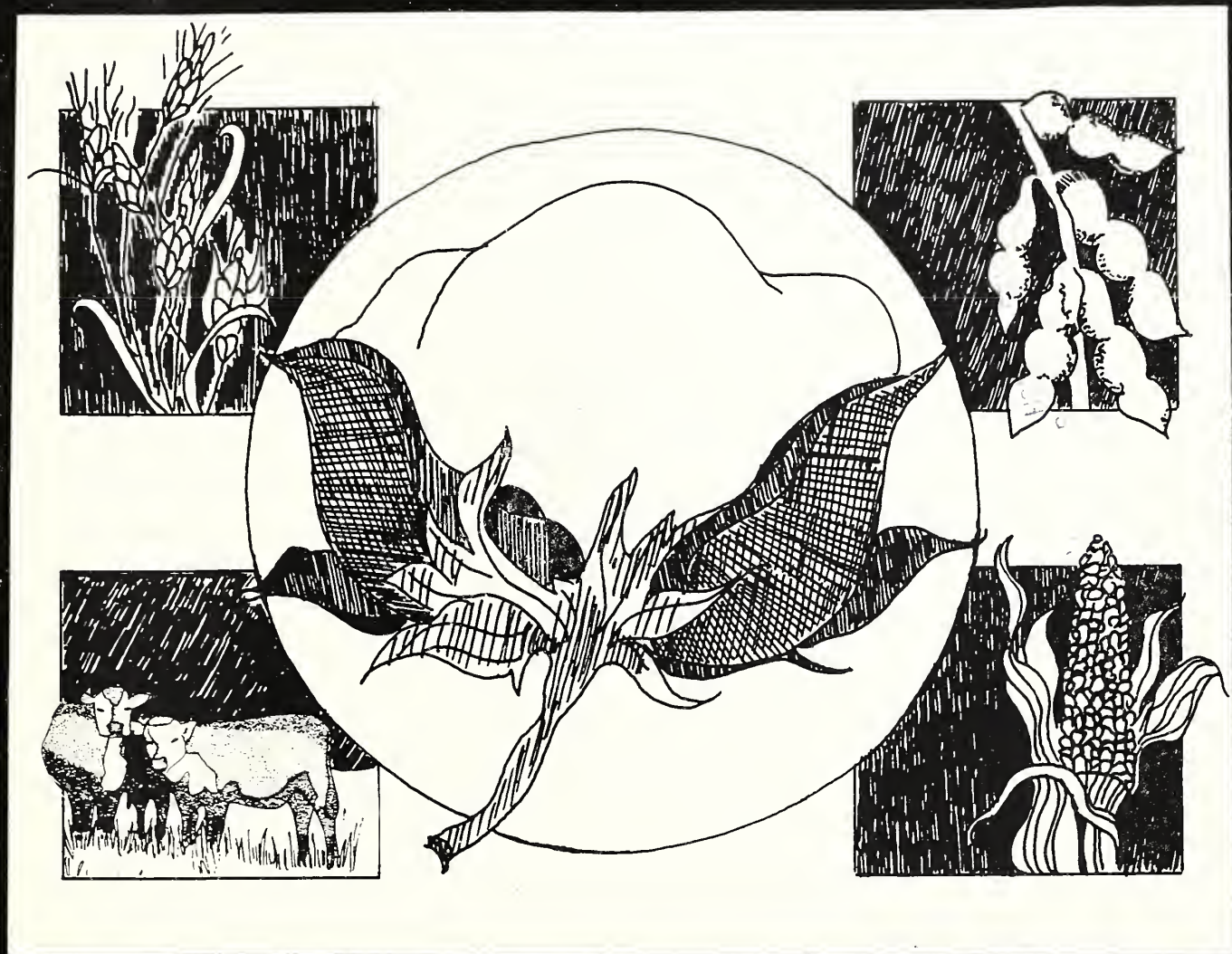
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Coffeeville Plant Materials Center

Coffeeville, Mississippi

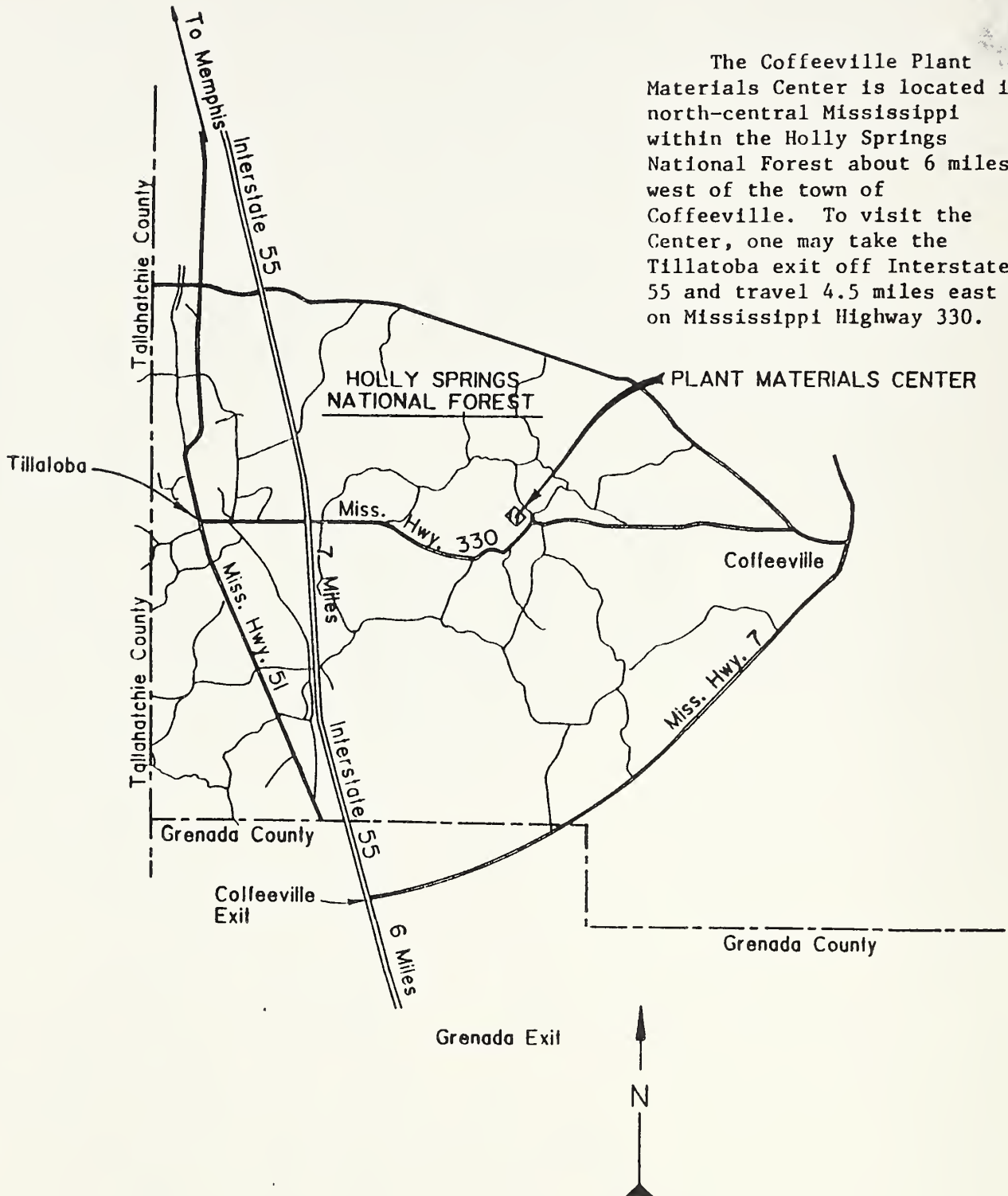
Report of Activities -- 1987
Including Field Activities in
Arkansas, Louisiana, and Mississippi



Cotton king again

Location

The Coffeeville Plant Materials Center is located in north-central Mississippi within the Holly Springs National Forest about 6 miles west of the town of Coffeeville. To visit the Center, one may take the Tillatoba exit off Interstate 55 and travel 4.5 miles east on Mississippi Highway 330.



COFFEEVILLE PLANT MATERIALS CENTER
COFFEEVILLE, MISSISSIPPI
REPORT OF ACTIVITIES

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INTRODUCTION

The Coffeerville Plant Materials Center (PMC) is part of a network of 25 centers operated by the Soil Conservation Service (SCS). The National Plant Materials program began soon after the SCS was founded because the need to have better plants was recognized at that time. The purpose of the plant materials program is to select improved plant cultivars and develop better methods for the prevention of soil erosion using plants. Nationwide, the plant materials program has participated in the testing and release of over 250 varieties of superior plants. Many of these are well adapted to the South. The most outstanding of these is probably 'Pensacola' bahiagrass.

The Coffeerville PMC began as part of the much larger Flood Prevention Seed Unit on August 8, 1960. In 1982, the Seed Unit was discontinued, and plant materials activities were reorganized and expanded. Throughout its history, the Coffeerville PMC has evaluated over 6,000 plants. A number of these were determined to be superior conservation plants and were later released, not only by Coffeerville but by other PMCs and experiment stations. To date, the Coffeerville PMC has been a participant in the release of seven cultivars as follows:

- 'Quail Haven' reseeding soybean for wildlife.
- 'Ellagood' autumn olive for wildlife.
- 'Gobbler' sawtooth oak for wildlife.
- 'Meechee' arrowleaf clover for forage.
- 'Chiwapa' Japanese millet for wildlife.
- 'Halifax' maidencane for stream channels and shorelines.
- 'Wilmington' bahiagrass for improved pasture.

SOILS

Most work at the PMC is conducted in the nearly level bottom land on Oaklimeter silt loam. These soils are naturally very acid and wet, but they can be very productive with proper water control and drainage. Loring and Grenada silt loams with fragipans dominate the slopes.

WEATHER

The year 1987 began with relatively mild temperatures for January and February. Temperatures reached the 70's in March, but prospects for an early spring were shattered by the passage of a strong cold front with periods of sleet and snow in late March. Many plants that had broken dormancy were damaged. The change was so abrupt that the temperature dropped from a high of 68° F. on March 28 to a low of 29° F. on March 29. Nighttime freezing temperatures persisted for a week. The last freezing temperature of 27° F. on the morning of April 5 gave way to a hot and wet spring. On May 8, the temperature reached 96° F. and was followed by 99° the next day, establishing a record high for so early in the year. The soils became dry due to normal summer temperatures in the 90's combined with below-average rainfall for July through October. A severe drought was prevented only because of a wet September.

Frost came about three weeks earlier than in the previous year. The frost-free period had lasted from April 6 through October 21. This was a period of 199 days or about three weeks less than normal.

TABLE 1. TEMPERATURE AND PRECIPITATION AT COFFEEVILLE PLANT MATERIALS CENTER

Weather Summary

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
<u>Temperature (°F)</u>														
Extreme 1987	High	59	70	78	92	99	92	99	100	93	84	81	65	100
	Low	16	22	26	25	52	61	62	71	53	28	27	22	16
Average 1987	High	47	53	63	72	82	87	91	93	86	69	60	52	71
	Low	31	37	42	47	63	68	72	74	64	42	41	36	51
Average 1975-1986	High	45	51	62	70	77	88	91	89	83	71	61	49	69.7
	Low	28	34	43	51	61	69	74	72	64	51	43	31	51.7
<u>Precipitation (in.)</u>														
Total	1987	3.32	5.62	6.71	2.14	11.16	6.35	2.81	2.62	6.78	1.51	8.03	5.64	62.69
Average 1969 - 1986		4.99	4.45	6.75	5.64	5.59	4.78	4.13	3.27	4.11	3.71	6.22	5.89	59.53

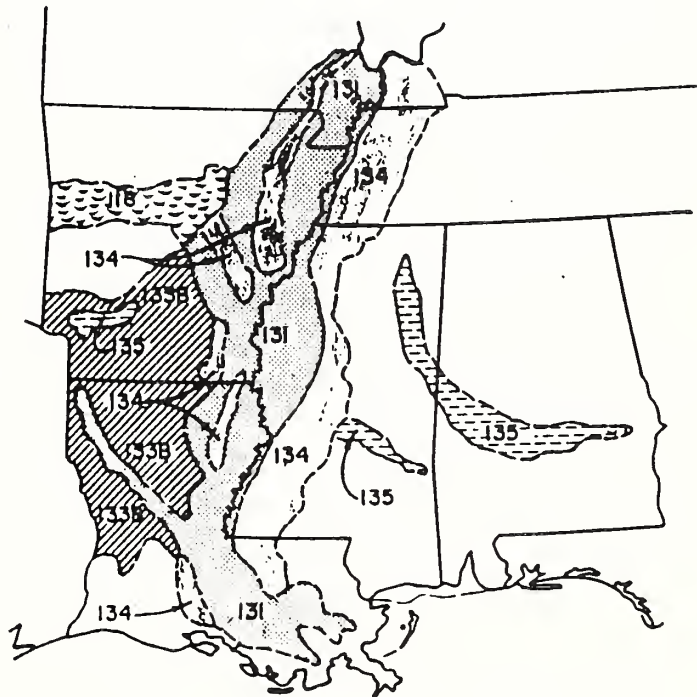
SERVICE AREA

Five major land resource areas (MLRA) are in the Coffeerville PMC Service Area. They are:

- MLRA 118: ARKANSAS VALLEY AND RIDGES
- MLRA 131: SOUTHERN MISSISSIPPI VALLEY ALLUVIUM
- MLRA 133B: WESTERN COASTAL PLAIN
- MLRA 134: SOUTHERN MISSISSIPPI VALLEY SILTY UPLANDS
- MLRA 135: ALABAMA, MISSISSIPPI, AND ARKANSAS BLACKLAND PRAIRIE

SERVICE AREA FOR COFFEEVILLE PMC

The PMC service area covers a major portion of Arkansas, Louisiana, and Mississippi. Significant areas of Alabama and Tennessee are included. Climate is humid and temperate. Rainfall is approximately 50 inches for most of the area. Droughts in late summer and autumn are common. Temperature increases from north to south. Summer temperatures of 90° to over 100° F. are commonly accompanied by high humidity. Winters are mild in the southern part. Snowfall accumulations are common only in the north. Soil, vegetation, topography, and land usage are closely related to the major resource areas (MLRA).



When fully operational, the new PMC at Booneville, Arkansas, will service MLRA 118.

LONG RANGE PROGRAM

Conservation problems for the PMC service area are identified in the PMC Long Range Program. Once the priorities have been established by the State Conservationists' Advisory Committee, the PMC develops project plans to solve the problems given the highest priority. Problems related to cropland erosion have been given the highest priority, and most PMC work in 1987 was directed toward solving them.

Needs identified under CROPLAND EROSION CONTROL are:

1. Winter cover compatible with no-till or conservation tillage.
2. Better plants for field borders, waterways, and terraces.
3. Continuous cover for cropland.
4. Vegetative substitutes (flumes) for expensive drop structures.

Only limited work was done on the medium and low priority problems which were the control of erosion on pasture and rangeland, woodland, and critical areas. Needs identified in the long range program under these problems are:

PASTURE AND RANGELAND EROSION CONTROL.

1. Perennial cool season forage grasses.
2. Warm season forage grasses.
3. Legumes compatible with grasses.

WOODLAND EROSION CONTROL.

1. Desirable plants for clear-cut sites.

CRITICAL AREA EROSION CONTROL.

1. Vegetation for excavations and construction sites.
2. Vegetation for stream banks and shorelines.
3. Plants for chemically damaged soils.

MAJOR PROJECTS IN 1987

Problems in the PMC Long Range Program are too complex to solve in one simple operation so they are broken into a set of simpler components. Then the plant materials center manager, in consultation with appropriate technical specialists, develops project plans designed to solve one segment of the problem. The projects are designed 1) to develop improved methods to use plant materials, or 2) to select and release improved cultivars for conservation purposes.

PROJECTS TO DEVELOP IMPROVED METHODS

The investigation of new methods to use conservation plants has been a part of the Coffeerville PMC operation throughout much of its history. In response to the Farm Security Act of 1985, the PMC has placed increased emphasis on developing better methods to solve erosion problems using plants. Much of this work involved developing systems to reduce tillage. A no-till drill was purchased, new projects were designed, and the possible use of no-till systems with common crops was explored. As methods are developed and shown to be an improvement, they will be added to technical guides and recommended for field use.

Cover Crops for Cotton

Cotton is a culprit responsible for much of the erosion in the Coffeerville PMC service area as well as other areas in the South. Much of the PMC service area has fertile, but highly erodible soils. Even when the best conservation measures are used, many soils cannot be tilled without excessive erosion.

In 1987, states within the Coffeerville PMC service area initiated a vigorous program to develop and demonstrate methods and plants to use for erosion control in cotton fields. Conservation field trials were started in the fall in cotton fields in Mississippi and Louisiana using the best species currently recognized for cover crops. Plans were developed to extend the trials into Tennessee and Arkansas and to intensify efforts at the PMC. An agronomist, Dr. Herby Bloodworth, was hired to begin working at the PMC in 1988. He is to coordinate and publicize the COTTON PROJECT.

Earlier, the Coffeerville PMC had already undertaken no-till studies for cotton. In the spring, cotton was planted on the center in vetch, wheat, and clovers (crimson, subterranean, ball, and arrowleaf) and compared with conventional methods. The results of this trial have not been analyzed. However, the test indicated that no-till cotton could be successfully grown, but more work needed to be done.

In the fall of 1987, the PMC moved off the center to test cool season species for herbicide damage in a nearby cotton field. The field had been planted to cotton for several years, and herbicides typically used for weed control had been used for much of the time. Approximately 30 cool-season species, mostly clovers, vetches, brassicas, and grasses, with potential for winter cover were planted. A control was established in an untreated field at the PMC. Germination was as good in the cotton field as at the PMC.

Some of the brassicas showed slight discoloration, but no accession showed substantial damage from the herbicides at the end of the year.

No-Till Plantings of Row Crops

In addition to cotton, no-till plantings of milo in 1986 and soybeans in 1987 were made at the PMC in some common cover crop species and compared with conventional tillage. Milo yielded an average of 86.6 bushels per acre. There was no significant difference in yield due to cover, but yield was influenced by topsoil thickness and the depth to the fragipan. No analysis has yet been made for the soybean trials. More details of these tests will be reported in technical papers and issued by the PMC.

No-Till Trials in Sod

An attempt was made to convert old fields and roadside slopes to more desirable forms of vegetation using the no-till drill. The most successful of the tests was a planting of Quail Haven reseeding soybean into an old field situation following herbicide treatment. In a roadside situation, several attractive species were planted for beautification using the no-till drill after mowing in the fall. Crimson clover and hairy vetch were the only highly successful species. Some wildflowers bloomed but were too few to be noticed in passing. An attempt to renovate an old field with improved cultivars of native warm season grasses was unsuccessful.

Vegetative Flumes

Water flowing from fields into streams cuts gullies back into the banks, and drop structures are the standard method to control erosion. Less expensive vegetative measures were tested at the PMC using various types of material and vegetation. Excelsior mat provided by the American Excelsior Company was better than a method improvised at the PMC using burlap bags. 'Halifax' maidencane provided the most effective cover.

PROJECTS FOR RELEASE OF IMPROVED CULTIVARS

From start to finish, the release of an improved cultivar requires about 15 years of testing. The process is usually divided into a series of 7 basic steps that are designed to determine the adaptiveness and performance of the plants and to ensure an adequate supply of materials.

Step 1: Assembly

After a project plan is developed and approved by the State Conservationists' Advisory Committee, the PMC starts to collect seeds or plants from many situations to compare at the PMC. A large number is usually required to ensure that superior plants will be present. An assembly of more than 35 collections is called a major assembly. Many major assemblies have more than 100 collections. No major assemblies were initiated at the PMC in 1987.

Step 2: Initial Evaluation

After the seeds or plants arrive at the Plant Materials Center and are given an accession number, they are planted in rows or small plots. Accessions in each assembly are planted in groups so an easier and more meaningful comparison can be made. Periodically, PMC personnel evaluate the plants for vigor; seed production; resistance to diseases and insects; and tolerance to heat, drought, and cold. Also, the plants are measured and dates of flowering and maturity recorded. At the end of this step, a few of the best accessions are selected for advanced evaluation.

In 1987, initial evaluations continued for the following species:

- Purpletop (Tridens flavus) for critical area stabilization and rangeland improvement.
- Beaked panicgrass (Panicum anceps) for critical area stabilization and rangeland improvement.
- Sensitive plant (Mimosa strigillosa) for cropland erosion control and critical area stabilization.
- Bahiagrass (Paspalum notatum), cold-tolerant, for improved pasture.
- Crownvetch (Coronilla varia), heat-tolerant, for critical area stabilization.
- Lespedezas (Lespedeza sp.), upright natives, for erosion control in forests and field borders.
- Trailing wild bean (Strophostyles sp.) for erosion control in forests and field borders.

In addition to the purposes given for evaluating the preceding species, most species have secondary benefits for other conservation purposes.

The project for initial evaluation of prostrate native lespedeza was dropped. The assembly was initially small because most collections were introduced annuals incorrectly identified. At the end of the year, only one accession remained alive.

Technical reports were issued in 1987 for initial evaluations of partridgepeas and Illinois bundleflowers completed in the previous year.

The superior accessions of partridgepea were increased for future advanced evaluations. No decisions was made for further evaluation of the bundleflowers.

Copies of technical reports may be obtained by writing the Coffeeville PMC or the Plant Materials Specialist at the Federal Building in Jackson, Mississippi.

Step 3: Initial or Small Scale Increase

When an initial evaluation has been completed and accessions with superior qualities have been selected, they are increased in small plots to provide material for additional testing. In 1987, initial increases were begun for the accessions of partridgepeas that were considered to have release potential. These were in addition to other accessions already in advanced evaluations.

Step 4: Advanced Testing and Field Evaluation Plantings

When sufficient material has been increased, the accessions selected as superior in initial evaluations are tested for ability to solve one or more conservation problems in the PMC Long Range Program. The selected accessions are compared with standard plants that are currently considered the best to solve the problem.

Advanced testing often includes off-center field evaluation plantings (FEP) to test plants where soil or other conditions strongly contrast with those at the center. These are conducted as a part of the PMC program or in conjunction with other plant materials activities.

In 1987, advanced evaluations continued for five accessions with release potential as follows:

Giant reed (Arundo donax, PI-432432)
Afghan reedgrass (Calamagrostis pseudophragmites, PI-220584)
Goat willow (Salix caprea, PI-434284)
Gilg willow (Salix gilgiana, 9004882)
Erect willow (Salix rigida, 9004885)
Prairie willow (Salix humilis, 9004886)

Progress in the advanced evaluations of giant reed was described in three technical reports issued in 1987. As the evaluations progress on these and other candidates, a technical report will be prepared to inform plant specialists of the progress. Important decisions will be summarized in future editions of this report.

Step 5: Field or Large Scale Increase

Accessions that are candidates for release are grown in large quantities for the final stages of evaluation. Some of the material continues to be used in advanced evaluations or FEPs, but much is destined for field plantings. Increases of common and 'Appalow' sericea lespedeza were grown in 1987 for field plantings. Also, a large quantity of 'Quail Haven' reseeding soybean, released in 1986, was produced to provide seed for commercial growers.

Step 6: Field Plantings

Prior to field planting, a long range plan is prepared for the orderly testing of the promising plant. The plantings are usually scheduled over a number of years in a variety of soil and climatic conditions, if possible. Field plantings are coordinated by Plant Material Specialists who generally serve more than one state, and each state may test plants from several PMCs. The test sites are provided by conservation district cooperators, mining companies, local governments, and others. The plantings and evaluations are usually conducted through SCS field offices.

The last step in evaluating a candidate for release by a PMC is the field planting (not to be confused with the field evaluation planting or FEP). In field plantings, the test plant is compared to standards (best plants currently available for that purpose) in actual field situations. At this point, the test plants are still in the experimental stage and are not to be harvested and sold before they are formally released.

Step 7: Cultivar Release and Use

When data from all of the previous steps have been assembled, they are presented to the cooperating agencies and release committee. If they agree that the plant is superior, the plant is cooperatively named and released for commercial production and use. The Coffeerville PMC has responsibility for maintaining breeder and foundation blocks of its releases, and does not supply plant material to the general public. It only maintains small "foundation" blocks to provide genetically pure stock to qualified growers who supply the public.

Individuals interested in growing SCS released cultivars commercially may obtain more information through any office of the Soil Conservation Service. Those who desire to grow certified seeds should directly contact Foundation Seed Stock at Mississippi State University who supply genetically pure foundation seed for releases from the Coffeerville PMC.

FIELD ACTIVITIES IN ARKANSAS, LOUISIANA, AND MISSISSIPPI

FIELD EVALUATION PLANTINGS

Evaluations for field evaluation plantings which were begun in Arkansas, Louisiana, and Mississippi (The Delta States) in 1983 and 1984 were concluded in 1987 except some woody plantings for mine reclamation. One new field evaluation planting was established near the Coffeerville PMC in the fall of 1987. It was previously discussed in the "Cover Crop for Cotton" section.

Arkansas Blackland Prairie

This planting made in 1984 in a pasture near Tollette, Arkansas, included a management trial and an adaptation trial. The geologic substrate and soil properties of this region are similar to those in larger blackland prairie regions of Mississippi and Alabama, and data obtained from this have much broader implications elsewhere.

The management trial was to select species for grazing that would perform well with low levels of fertility. It consisted of 7 fertility treatments with 45 accessions in each. Technical reports were prepared in 1986 describing performances of the species but data were inadequate to substantiate the selection of the best cultivars. Evaluations for these cultivars were continued through 1986 and additional reports were written in 1987. The best of the introduced bluestems for grazing appeared to be Caucasian with Plains being second. It appeared that native grasses would perform well in mixtures but were slow to get a good stand. The best cultivars of native grasses for this area appeared to be 'Alamo' switchgrass, 'Lometa' indianguass, 'Kaw' big bluestem, and 'Haskell' sideoats grama. Any cultivar of the tall sericea lespedezas grew well with the common type being as good or better than any. The low 'Appalow' sericea did poorly because of competition with taller plants for light.

Evaluations were continued for the adaptation trial and a small set of plots established by the local field office. They were due for conclusion in 1987. Ownership of the land changed in 1987, and the new owner, considering a bale or two of hay to be more valuable than any knowledge to be gained from the study, mowed the plots in late summer. Because of this, some data obtained in the final evaluation in October were not up to par. No report has yet been written for this part of the study.

Surface Mine Reclamation

Cooperative plantings with the Mississippi Department of Natural Resources (Bureau of Geology) were made in 1985 to select commercially available plants which could give adequate cover on harsh sites where the landowner cannot afford to use standard methods. In the spring, 24 warm-season varieties with 4 replications were planted at 6 locations in Mississippi on a wide range of materials. A similar planting was started in Louisiana in 1986. Plantings of woody and cool-season varieties were also made at the Crystal Springs and Hattiesburg sites.

Evaluations were concluded for these in 1987 for all except the warm-season planting in Louisiana and the woody plantings. Final reports for these have not been prepared.

FIELD PLANTINGS

Field plantings are made to gather information on candidates for release from PMCs. After release, they may be made to gather more information when the range of adaptation of a cultivar is not clearly known.

No field planting projects were completed in 1987, but technical reports were written for six projects completed in 1986. These are summarized as follows:

'Quail Haven' Reseeding Soybean (Glycine soja, PI-163453, MS-128)

This plant was released for wildlife use (WLDF) by the Coffeeville PMC in 1986. Field plantings using 'Bobwhite' as a standard were begun in 1980 and continued through 1986. Bobwhite is also a vining type of soybean released for wildlife by the Elsberry (MO) PMC in 1975. Twenty-five field plantings were made for wildlife use throughout the Delta States. Quail Haven was considered superior for use in the south because it produces more seeds and they mature about a month later--about November 1 instead of October 1 for Bobwhite. Later maturity enables quails and doves to have food later into the winter when food is scarce. Quail Haven was released for wildlife use in 1986 by the Coffeeville Plant Materials and the Mississippi Agricultural and Forestry Experiment Station (MAFES).

'WW-477' Yellow Bluestem (Bothriochloa ischaemum, PI-301477)

This plant was tested to gather information concerning the adaptation of this cultivar being considered for release by the Southern Great Plains Experiment Station in Woodward, Oklahoma. Two field plantings were made for roadside erosion control (CARD) and three for pasture (PAST) using two other varieties of yellow bluestem, 'King Ranch' and 'Plains,' as a standard for comparison. Additional plantings were planned but seeds were available only in 1982. Plains appeared to be the best variety overall. Although WW-477 was more vigorous and appeared superior to the others the first summer, it was damaged by freezing. King Ranch was also damaged but not as severely. The major obstacle in using yellow bluestems was the lack of drills that could sow the chaffy seeds. Generally, bermudagrass and bahiagrass performed better, except perhaps in the Blackland Prairie (MLRA 135), when proper amounts of fertilizer were used.

'Comanche' Partridge Pea (Cassia fasciculata, PI-421727)

This plant was released by the Knox City (TX) PMC in 1985. Twenty-four field plantings of this cultivar began in the Delta States in 1979 and continued until none survived in 1986. Partridgepeas from commercial sources were used as a standard. Four plantings were made to fix and provide nitrogen to grasses in waterways (CACW), 4 to reclaim surface mined areas (CASM), and 16 for wildlife. Comanche did not appear superior in the Delta States to local ecotypes and was possibly not as well adapted as some. None of the partridge peas performed well in waterways. They did perform well in surface mines and wildlife plantings when planted before the weather became hot and dry. Being a pioneer plant, the partridgepeas would usually last for no more than three years before declining due to competition by other plants.

'Aztec' Maximilian Sunflower (Helianthus maximiliana, PI-421845)

This plant was released by the Knox City PMC in 1978. It was placed in 17 field plantings in the Delta States because its range of adaptation was not fully known. 'Prairie Gold' maximilian sunflower, another 1978 release from the Manhattan (KS) PMC, was used as a standard for comparison. Field plantings were begun in 1979 and continued through 1986. Aztec was considered better because it matured later and seeds were available longer into the winter for songbirds. Also, it was slightly more vigorous. Establishment of both cultivars was often poor, either due to drought or poor seed quality. Although they may start slowly, they provided good cover for erosion control after the first year and grew well on eroded blackland soils. Both cultivars were attractive and may be used as ornamentals where one would not object to their tallness.

'Haskell' Sideoats Grama (Bouteloua curtipendula, PI-433946)

This plant was released by the Knox City PMC in 1983. It was planted in field plantings in western Arkansas for roadside erosion control where its range of adaptation was not definitely known. 'El Reno' sideoats grama, a 1944 release from the Manhattan PMC, was used as a standard for comparison. While other field plantings were scheduled, only one field planting was made in 1982 and another in 1984. Haskell was the better adapted variety to the area, but it probably would not perform better than bermudagrass or bahiagrass in similar situations. It apparently would be satisfactory in native grass mixtures for pasture.

'Ellagood' Autumn Olive (Elaeagnus umbellata, PI-421132)

This plant was released for wildlife use by the Americus (GA) PMC in cooperation with the Coffeetown PMC in 1986. Field plantings using 'Cardinal' as a standard were begun in 1980 and continued through 1986. Cardinal autumn olive was released for wildlife by the Elsberry PMC in 1961. Field plantings were made at nine locations in the Delta States. Ellagood was considered superior for use in the south because it produced more fruit which matured about a month later enabling birds to have food later into the winter when food was scarce.

No new long range plans for field plantings were implemented in 1987. Evaluations continued for those previously scheduled. A chart with species currently in field plantings is given at the end of this report. It gives years in which species are to be planted and the duration of the evaluation. When evaluations are completed, the data will be summarized and technical papers will be made available to participating field offices and other interested individuals.

SCHEDULE FOR FIELD PLANTINGS

With Prepared Plans

ACCESSION	P M C	YEAR										T
		: 82	: 83	: 84	: 85	: 86	: 87	: 88	: 89	: 90	: 91	
		: C:	:	:	:	:	:	:	:	:	:	
<u>Aeschynomene americana</u> , PI-421680		:	:	:	:	:	:	:	:	:	:	:
American jointvetch	FL	:	X	X	X	X	:	:	T	:	:	:
12F001	:	:	:	:	:	:	:	:	:	:	:	:
<u>Andropogon gerardii</u> , PI-474216		:	:	:	:	:	:	:	:	:	:	:
'Rountree' Big bluestem	MO	:	:	:	:	:	:	X	X	X	:	95
29F407G	:	:	:	:	:	:	:	:	:	:	:	:
<u>Calamagrostis pseudophramites</u>		:	:	:	:	:	:	:	:	:	:	:
PI-220584, Afghan reedgrass	MS	:	:	X	X	X	X	X	T	:	:	:
28F120	:	:	:	:	:	:	:	:	:	:	:	:
<u>Desmanthus illinoensis</u> , PI-434011		:	:	:	:	:	:	:	:	:	:	:
'Sabine' Illinois bundleflower	KC	:	X	X	X	:	:	:	T	:	:	:
48F115	:	:	:	:	:	:	:	:	:	:	:	:
<u>Engelmannia pinnatifida</u> , PI-477962		:	:	:	:	:	:	:	:	:	:	:
'Eldorado' Engelmann daisy	KC	:	:	X	X	X	X	:	:	:	T	:
48F090	:	:	:	:	:	:	:	:	:	:	:	:
<u>Indigofera miniata</u> var. PI-477963		:	:	:	:	:	:	:	:	:	:	:
Western indigo	KC	:	:	X	X	X	X	:	:	:	T	:
48F117	:	:	:	:	:	:	:	:	:	:	:	:
<u>Indigofera pseudotinctoria</u> ,		:	:	:	:	:	:	:	:	:	:	:
PI-198015, False anil indigo	GA	:	X	X	X	X	:	:	:	T	:	:
13F500	:	:	:	:	:	:	:	:	:	:	:	:
<u>Lespedeza cuneata</u> , PI-286452		:	:	:	:	:	:	:	:	:	:	:
'Appalow' Sericea lespedeza	KY	:	:	:	:	X	X	X	X	:	:	94
21F002	:	:	:	:	:	:	:	:	:	:	:	:
<u>Lespedeza cuneata</u> , PI-421873		:	:	:	:	:	:	:	:	:	:	:
'Okinawa' Sericea lespedeza	GA	:	X	X	X	:	:	:	T	:	:	:
13F520	:	:	:	:	:	:	:	:	:	:	:	:
<u>Panicum amarum</u> , PI-421957		:	:	:	:	:	:	:	:	:	:	:
Bitter panicum, PI-421932	FL	:	:	:	:	X	:	:	:	T	:	:
9003324	:	:	:	:	:	:	:	:	:	:	:	:
<u>Panicum virgatum</u> , PI-422006		:	:	:	:	:	:	:	:	:	:	:
'Alamo' Switchgrass	KC	:	X	X	X	X	:	:	T	:	:	:
48F500	:	:	:	:	:	:	:	:	:	:	:	:
<u>Salix caprea</u> , PI-434284		:	:	:	:	:	:	:	:	:	:	:
Goat willow	MS	:	:	X	X	X	X	X	T	:	:	:
28F480	:	:	:	:	:	:	:	:	:	:	:	:
<u>Salix gilgiana</u> , 9004882		:	:	:	:	:	:	:	:	:	:	:
Gilg willow	MS	:	:	X	X	X	X	X	T	:	:	:
28F482	:	:	:	:	:	:	:	:	:	:	:	:
<u>Salix humilis</u> , 9004886		:	:	:	:	:	:	:	:	:	:	:
Prairie willow	MS	:	:	X	X	X	X	X	T	:	:	:
28F481	:	:	:	:	:	:	:	:	:	:	:	:
<u>Salix rigida</u> , 9004885		:	:	:	:	:	:	:	:	:	:	:
Erect willow	MS	:	:	X	X	X	X	X	T	:	:	:
28F483	:	:	:	:	:	:	:	:	:	:	:	:

SCHEDULE FOR FIELD PLANTINGS

With Prepared Plans

ACCESSION	P	YEAR											
		M	:82	:83	:84	:85	:86	:87	:88	:89	:90	:91	T
		C:	:	:	:	:	:	:	:	:	:	:	:
<u>Sorghastrum nutans</u> , PI-434362	:	:	:	:	:	:	:	:	:	:	:	:	:
'Lometa' Indiangrass	KC	:	:	:	X	X	X	X	:	:	:	:	T
48F530	:	:	:	:	:	:	:	:	:	:	:	:	:
<u>Sorghastrum nutans</u> , PI-315747	:	:	:	:	:	:	:	:	:	:	:	:	:
'Rumsey' Indiangrass	MO	:	:	:	:	:	:	X	X	X	:	:	94
29F734G	:	:	:	:	:	:	:	:	:	:	:	:	:
<u>Spartina patens</u> , PI-421238	:	:	:	:	:	:	:	:	:	:	:	:	:
Marshhay Cordgrass, PI-415141	FL	:	:	:	:	:	X	X	:	:	:	T	:
	:	:	:	:	:	:	:	:	:	:	:	:	:
<u>Zea mexicana</u> , PI-422162	:	:	:	:	:	:	:	:	:	:	:	:	:
Teosinte	FL	:	:	X	X	X	X	:	:	:	:	:	T
12F009	:	:	:	:	:	:	:	:	:	:	:	:	:

LEGEND

PMC = Primary PMC
 FL = Brooksville, Florida
 GA = Americus, Georgia
 KC = Knox City, Texas
 KY = Quicksand, Kentucky
 MO = Elsberry, Missouri
 MS = Coffeeville, Mississippi

YEAR

X = Planting made.
 T = Evaluation terminated.

9-1-87

COFFEEVILLE PLANT MATERIALS CENTER, TECHNICAL NOTES.

- No. 1. Initial Evaluation of Partridgepea.
- No. 2. Initial Evaluation of Illinois Bundleflower.
- No. 3. Advanced Evaluations of Giant Reed: I. Results of Monthly Planting Study.
- No. 4. Advanced Evaluations of Giant Reed: II. Planting Position Study.
- No. 5. Advanced Evaluations of Giant Reed: III. Survival and Spread Study (1983-1986).
- No. 6. Arkansas Blackland Prairie Field Evaluation Planting. III: Performance of Introduced Bluestems (1983-1986)
- No. 7. Arkansas Blackland Prairie Field Evaluation Planting. IV: Performance of Native Bluestems (1983-1986).
- No. 8. Arkansas Blackland Prairie Field Evaluation Planting. V: Performance of Switchgrasses (1983-1986).
- No. 9. Arkansas Blackland Prairie Field Evaluation Planting. VI: Performance of Indiangrasses (1983-1986).
- No. 10. Arkansas Blackland Prairie Field Evaluation Planting. VII: Performance of Short Grasses (1983-1986).
- No. 11. Arkansas Blackland Prairie Field Evaluation Planting. VIII: Performance of Five Lespedeza Varieties (1983-1986)

PLANT MATERIALS REPORT FOR ARKANSAS, LOUISIANA, AND MISSISSIPPI.

- No. 1. Field Plantings of Autumn Olive (1980-1986).
- No. 2. Field Plantings of Wildlife Soybeans (1980-1986).
- No. 3. Field Plantings of 'Comanche' Partridgepea (1979-1986).
- No. 4. Field Plantings of 'Aztec' Maximilian Sunflower (1979-1986).
- No. 5. Field Plantings of 'WW-477' Yellow Bluestem (1982-1986).
- No. 6. Field Plantings of 'Haskell' Sideoats Grama (1982-1986).

COFFEEVILLE PLANT MATERIALS CENTER

COFFEEVILLE, MISSISSIPPI

Report of Activities -- 1987

Including Field Activities in Arkansas, Louisiana, and Mississippi

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